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**Air Force Center for Engineering  
and the Environment**



## Seymour Johnson AFB Housing Privatization Environmental Assessment

*AFCEE Contract No.*

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# **FINDING OF NO SIGNIFICANT IMPACT PROPOSED PRIVATIZATION OF MILITARY FAMILY HOUSING AT SEYMOUR JOHNSON AIR FORCE BASE, NORTH CAROLINA**

## **Agency**

U.S. Air Force, Air Combat Command, 4<sup>th</sup> Fighter Wing

## **Background**

The attached Environmental Assessment (EA) analyzes the potential impacts resulting from the privatization of military family housing (MFH) at Seymour Johnson Air Force Base (AFB), Wayne County, North Carolina. The EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (Title 42 United States [U.S.] Code [U.S.C.] 4321, et seq.), the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA at Title 40 of the Code of Federal Regulations Sections 1500-1508 (40 CFR 1500-1508) and Air Force policy and procedures at 32 CFR Part 989.

## **Proposed Action and Alternatives**

Under the Proposed Action, the Air Force and a private developer (the Project Owner [PO]) would enter into a 50-year land-lease, real-estate agreement where the Government conveys all existing housing and associated improvements to the PO, and the PO plans, designs, develops, renovates, demolishes, constructs, owns, operates, maintains, and manages all related assets. The PO would be required to secure all necessary financing and provide required equity. In return, the PO would be entitled to collect rental income based on the military member's Basic Allowance for Housing.

MFH at Seymour Johnson AFB has been undergoing a 10-phase MILCON Development Program to replace and renovate base housing prior to privatization. Under the Proposed Action, the Air Force plans a phased privatization where, upon closing the transaction, only those units certified for (post-construction) occupancy would be conveyed to the Project Owner (PO). Additional units currently under construction or renovation by the Air Force would be conveyed to the PO subsequent to the closing of the transaction. The actual number of units that would be conveyed to the PO at the time of closing could vary depending on the date of closing and how far along in reconstruction process the MILCON Development Program has gotten. By the end of the initial development period, an estimated 898 housing units will be conveyed to the PO. In addition to managing the MFH at Seymour Johnson AFB, the Air Force expects the PO to plan for and provide desired community features to enhance the community experience of the military families. Three alternatives to the Proposed Action were analyzed early in the process, Private Sector Reliance, Partial Privatization and No Action; however, of these three alternatives, only the No Action Alternative was determined to be reasonable for detailed analysis.

## Summary of Environmental Consequences

The EA focused on evaluating the potential environmental impacts to areas and resources within the region of influence of the Proposed Action. Not potential impacts were identified for the following resource areas, which therefore were not evaluated in detail in the EA: biological resources, cultural resources, safety, earth resources, utilities and aesthetics. A summary of impacts to potentially affected resources follows.

Noise: There would be short-term, minor impacts from construction activities within the project area (the MFH areas).

Air Quality: Wayne County is currently in attainment for all NAAQS (NCDENR 2009). Construction emissions would not cause the area to exceed National Ambient Air Quality Standards.

Water Resources: Best management practices would be used at potential construction sites to prevent sediment-laden stormwater runoff from leaving the site; therefore, there would be no impacts.

Transportation: Short-term, minor impacts would occur to traffic entering and leaving the base from the transport of construction equipment, supplies and debris.

Socioeconomics and Environmental Justice: Neither Wayne County, nor the census block groups including and surrounding Seymour Johnson AFB, have concentrated minority or poverty populations; therefore, environmental justice is not an issue. The Proposed Action would only contribute small amounts to the economy of the region.

## Public Notice

NEPA regulations at 40 CFR 1506.6 and 32 CFR 989.24 require that the public be informed of the availability of the EQ before approval of the Finding of No Significant Impact (FONSI). A Notice of Availability was published in the *Federal Register* and the *Goldsboro News-Argus* on **August 31, 2009**. The public comment period ended on **September 29, 2009**.

## Finding of No Significant Impact

Based on my review of the facts and analysis contained in this EA, which are incorporated herein, I conclude the implementation of the Proposed Action will not have a significant impact on the environment either by itself or considering cumulative impacts. Accordingly, the requirements of NEPA, regulations promulgated by the President's Council on Environmental Quality at 40 CFR 1500-1508, and the U.S. Air Force implementing regulation at 32 CFR 989 are fulfilled and an environmental impact statement is not required.



PATRICK J. DOHERTY, Col, USAF  
Commander, 4 FW



Date

## **COVER SHEET**

### **ENVIRONMENTAL ASSESSMENT OF THE PRIVATIZATION OF MILITARY FAMILY HOUSING AT SEYMOUR JOHNSON AIR FORCE BASE, NORTH CAROLINA**

**Responsible Agency:** U.S. Air Force, Air Combat Command, 4<sup>th</sup> Fighter Wing

**Proposed Action:** Privatization of Military Family Housing (MFH) at Seymour Johnson AFB, NC

**Written Comments and Inquiries regarding this Document should be directed to:**  
Mr. Rick Bott, 4 CES/CEA, 1095 Peterson Avenue, Seymour Johnson AFB, NC 27531-2355

**Report Designation:** Environmental Assessment (EA)

**Abstract:** Pursuant to the Military Housing Privatization Initiative, the U.S. Air Force proposes to convey its MFH units, grant leases of land, and transfer responsibility for providing housing to a private developer at Seymour Johnson AFB. MFH at Seymour Johnson AFB has been undergoing a 10-phase MILCON Development Program to replace and renovate base housing prior to privatization. Under the Proposed Action, the Air Force plans a phased privatization where, upon closing the transaction, only those units certified for (post-construction) occupancy would be conveyed to the Project Owner (PO). Additional units currently under construction or renovation by the Air Force would be conveyed to the PO subsequent to the closing of the transaction. The actual number of units that would be conveyed to the PO at the time of closing could vary depending on the date of closing and how far along in reconstruction process the MILCON Development Program has gotten. By the end of the initial development period, an estimated 898 housing units will be conveyed to the PO. In addition to managing the MFH at Seymour Johnson AFB, the Air Force expects the PO to plan for and provide desired community features to enhance the community experience of the military families.

This EA has been prepared to evaluate the potential effects of the Proposed Action and alternatives, including the No Action Alternative, and to aid in determining whether an Environmental Impact Statement is needed. Resource categories that are analyzed in detail in the EA are noise, air quality, transportation, water resources, and socioeconomics and environmental justice. The Proposed Action would not result in impacts to biological resources, cultural resources, safety, earth resources, utilities and aesthetics. There would be minimal short-term impacts related to construction of desired community features. The 50-year land lease and the private management of MFH housing would not have an impact on the environment. Based on the nature of activities associated with the privatization of the MFH units and development of desired community features, the Air Force has determined that the impacts of the Proposed Action would not be significant and no Environmental Impact Statement is needed.

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## LIST OF ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
AAQS	Ambient Air Quality Standards
ACM	Asbestos-containing Materials
AFB	Air Force Base
AICUZ	Air Installation Compatible Use Zone
BAH	Basic Allowance for Housing
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIRF	Centralized Intermediate Repair Facility
CSE	Comprehensive Site Evaluation
dB	Decibels
dBA	A-weighted Decibels
DEA	Draft Environmental Assessment
DNL	Day-night Noise Levels
DOD	Department of Defense
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EO	Executive Order
ERP	Environmental Restoration Program
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
IDP 5	Initial Development Period
LBP	Lead-based Paint
µg/m <sup>3</sup>	Micrograms per Cubic Meter
MFH	Military Family Housing
MHPI	Military Housing Privatization Initiative
MILCON	Military Construction
mg/m <sup>3</sup>	Milligrams per Cubic Meter
MMRP	Military Munitions Response Program
MRA	Munitions Response Area
NAAQS	National Ambient Air Quality Standards
NCDENR	North Carolina Department of Environment and Natural Resources
NEPA	National Environmental Policy Act
NLR	Noise Level Reduction
OSBM	Office of State Budget and Management
OSHA	Occupational Safety and Health Administration
PM <sub>10</sub>	Particulate matter, 10 micrometers
PM <sub>2.5</sub>	Particulate matter, 2.5 micrometers

## LIST OF ACRONYMS AND ABBREVIATIONS

PO	Project Owner
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
RCW	Red-cockaded Woodpecker
ROI	Region of Influence
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
TPY	Tons per Year
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USCB	United States Census Bureau
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

## 1.0 PURPOSE AND NEED FOR THE ACTION

### 1.1 INTRODUCTION

This environmental assessment (EA) evaluates the potential environmental impacts of activities associated with privatization of the military family housing (MFH) at Seymour Johnson Air Force Base (AFB), North Carolina. This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (Title 42 United States [U.S.] Code [U.S.C.] 4321, et seq.), the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA at Title 40 of the Code of Federal Regulations Sections 1500-1508 (40 CFR 1500-1508) and Air Force policy and procedures (32 CFR Part 989).

### 1.2 PURPOSE AND NEED

Congress established the Military Housing Privatization Initiative (MHPI) in the National Defense Authorization Act for Fiscal Year 1996 (Public Law 104-106) as a tool to help the Department of Defense (DOD) improve the quality of life for its service members by improving the condition of their housing. Pursuant to the MHPI, the Air Force and a private developer (the Project Owner [PO]) would enter into a 50-year land-lease, real-estate agreement where the Government conveys all existing housing and associated improvements to the PO, and the PO plans, designs, develops, renovates, demolishes, constructs, owns, operates, maintains, and manages all related assets. The purpose of the Proposed Action is to comply with the MHPI and provide MFH at Seymour Johnson AFB that meets Air Force housing standards and the ongoing and projected housing requirements for the installation. The action is needed to provide modern and efficient housing for military personnel and their dependents stationed at Seymour Johnson AFB in accordance with Air Force guidelines for quality of life and floor space requirements.

### 1.3 LOCATION OF THE PROPOSED ACTION

Seymour Johnson AFB encompasses approximately 3,233 acres within the city limits of Goldsboro, North Carolina. Goldsboro is the county seat for Wayne County, which sits in the east-central portion of North Carolina (**Figure 1-1**).

MFH at Seymour Johnson AFB is sub-divided into two areas, Wayne Manor and Berkeley Village, on opposite sides of the main (north) entrance gate to Seymour Johnson AFB. These two areas are further subdivided into two and four parcels, respectively, for the purpose of privatization. In addition, there are four small parcels that do not contain housing units included in the Proposed Action. These parcels are listed with their approximate size in **Table 1-1**.

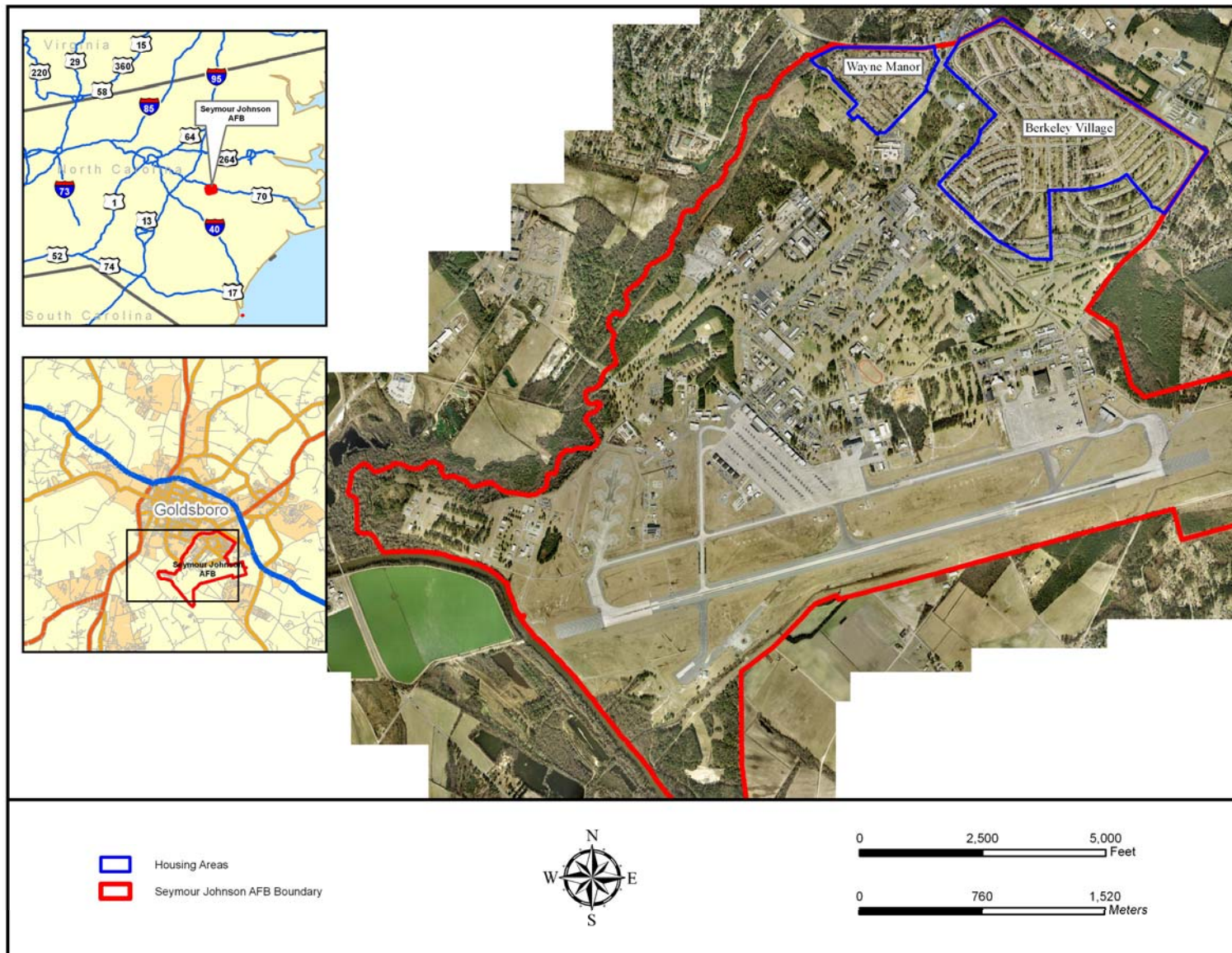


Figure 1-1. Seymour Johnson Air Force Base Location Map.

**Table 1-1. Housing Privatization Parcels.**

Parcel	MFH Area	Number of Acres
A	Wayne Manor West	16
B	Wayne Manor East	42
C	Forced Main Lift Station Bldg 1701	<1
D	Berkeley Village East	142
E	Berkeley Village West	98
F	Berkeley Village South	38
G	Berkeley Village Future Sports Complex	32
H	Forced Main Lift Station Bldg 4100	<1
I	Mechanical Circuit Breakers (3) for MFH	<1
J	Kenly Street Realignment	<1

## 1.4 REGULATORY COMPLIANCE

NEPA requires federal agencies to consider environmental consequences in their decision-making process. CEQ regulations mandate that all federal agencies use a systematic interdisciplinary approach to environmental planning and the evaluation of actions that might affect the environment. The Air Force Environmental Impact Analysis Process (EIAP) is accomplished through adherence to CEQ regulations and 32 CFR 989. These federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action.

In addition to NEPA and the CEQ and EIAP regulations, this EA considers all applicable laws, regulations, and Executive Orders (EOs) including but not limited to, the following:

- Clean Air Act
- Clean Water Act
- EO 11988, *Floodplain Management*
- EO 11990, *Protection of Wetlands*
- Endangered Species Act
- Migratory Bird Treaty Act
- Resource Conservation and Recovery Act
- Comprehensive Environmental Response, Compensation, and Liability Act
- Toxic Substances Control Act
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*
- EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*
- National Historic Preservation Act



## 1.5 PUBLIC AND AGENCY INVOLVEMENT

To facilitate public involvement in this project, the Air Force will prepare and issue a Notice of Availability for the draft version of the EA (**Appendix A**). The Draft EA was made available for review at the Wayne County Public Library in Goldsboro. A public notice was published in the Goldsboro News Argus to disclose the completion of the Draft EA. The notice will serve to invite public comments during a 30-day public review period. Comments received by the Seymour Johnson AFB Housing Office within the comment period will be addressed in the Final EA.

## 1.6 SCOPE OF THE ENVIRONMENTAL REVIEW

This EA identifies, describes, and evaluates the potential environmental impacts associated with MFH privatization. The Military Construction (MILCON) Development Program replacing the older housing units is not a part of this Proposed Action and is not evaluated in this EA. In addition to privatization of MFH, the Proposed Action includes the potential activities that may be included in community development concepts that POs may include in their proposals. These concepts are discussed in more detail in **Section 2.2**; however, for the purposes of defining the scope of this EA, it is assumed that there will be some earth movement or grading, construction, paving, and landscaping. In this EA, the potential environmental effects of taking no action are also described. As appropriate, the affected environment and environmental consequences of the action may be described in terms of a regional overview or a site-specific description.

Resources that may potentially be impacted by the Proposed Action are considered in detail in order to provide the Air Force Leadership with sufficient evidence and analysis to determine whether or not additional analysis is required pursuant to 40 CFR Part 1508.9. The resources analyzed in detail are noise, air quality, water resources, transportation and socioeconomics and environmental justice. The affected environment and the potential environmental consequences relative to these resources are described in **Chapters 3.0** and **4.0**, respectively.

Initial analysis indicates that the Proposed Action and Alternatives would not result in impacts to biological resources, cultural resources, safety, earth resources, utilities, and aesthetics. The reasons for not addressing these resources are briefly discussed in the following paragraphs.

**Biological Resources**—Seymour Johnson AFB sits in an urban setting with some rural attributes. Wildlife species present thrive in more urban settings because they have been better able to adapt to those conditions. One species found in Wayne County is protected under the Endangered Species Act (ESA); the red-cockaded woodpecker (RCW; *Picoides borealis*) is listed by the U.S. Fish and Wildlife Service (USFWS) as endangered. In 2002, the USFWS concurred with systematic survey findings that reported no detection of any RCW activity on the installation and also concurred that it is unlikely that RCWs use habitats within the installation (Hammond 2002). There are nine other species in Wayne County that are listed as Federal Species of Concern; however, according to the North Carolina Department of Environment and Natural Resources (NCDENR) none are expected to inhabit the MFH areas (NCDENR 2008). None of the activities associated with MFH privatization are expected to affect biological resources.

**Cultural Resources**—An initial archaeology survey was performed at Seymour Johnson AFB back in the 1970s and revealed that there were no intact archaeological sites of importance. The State Historic Preservation Office (SHPO) concurred in 1978. Several historic facility surveys have been performed and only buildings 2130 and 5015, two Cold War-era properties, were eligible for listing on the National Register of Historic Places (SJAFB 2003).

The Berkeley Village MFH complex contains Capehart-era houses that were constructed in 1958 and, therefore, are more than 50 years old. Capehart-era and the similar Wherry-era military housing (which were not constructed at Seymour Johnson AFB) represent a nationwide construction campaign that reflected significant changes in the peacetime military. The Capehart-era housing is being replaced under the MILCON Development Program.

**Safety**—In August 2007, a Comprehensive Site Evaluation (CSE) Phase I project was completed for Seymour Johnson AFB under the USAF Military Munitions Response Program (MMRP). The MMRP uses the CSE to characterize munitions-related military sites to determine actual or potential releases of related hazardous substances, pollutants, or contaminants to migration or exposure pathways. The goal of the CSE Phase I was to obtain sufficient data to serve as the basis for USAF decision-making regarding further munitions response actions or investigations (USACE 2007).

The CSE Phase I identified six current or potentially new munitions response areas (MRAs) at Seymour Johnson AFB. None were located within the MFH areas and only three of the MRAs were located within 1 mile of the MFH areas. These three potential MRAs were rated the lowest priority for response determination, indicating a lack of perceived hazard; therefore, none of the MRAs appear to pose a threat to the MFH areas at Seymour Johnson AFB (USACE 2007).

The MFH areas are located outside of Clear Zones, Accident Potential Zones, and Explosive Quantity Distance Areas; therefore, there are no safety hazards from the Proposed Action or Alternatives. The PO would be responsible for making sure that construction workers follow all safety procedures required by the Occupational Safety and Health Administration (OSHA) and similar state requirements.

**Earth Resources**—Most of the activities associated with implementation of the Proposed Action or Alternatives would occur within areas where soils have been disturbed and modified by prior housing construction. Impacts related to stormwater runoff are addressed in detail under water resources in **Chapters 3 and 4** of this EA.

**Utilities**—Currently, Seymour Johnson AFB maintains distribution lines for electrical, water, and wastewater utilities, but is not responsible for generating power, producing potable water, or treating wastewater from the base. The distribution lines would be conveyed to the PO with the housing units. The privatization of the MFH areas would not create additional demands on the utility systems.

**Aesthetics**—The Air Force goal of the MHPI is to “provide military families access to safe, quality, affordable and well-maintained housing in a military community where they will *choose* to live;” therefore, the potential effects on aesthetics would be beneficial. Air Force planning staff would ensure that all construction plans adhere to all local market-based standards.



## 1.7 ORGANIZATION OF THIS DOCUMENT

The EA is organized into seven chapters. **Chapter 1** provides the purpose of and need for the Proposed Action. **Chapter 2** contains a description of the Proposed Action and Alternatives. **Chapter 3** contains a general description of the biophysical resources and baseline conditions that could potentially be affected by the Proposed Action or Alternatives. **Chapter 4** presents an analysis of the potential environmental consequences of implementing the Proposed Action or Alternatives. **Chapter 5** includes an analysis of the potential cumulative impacts at Seymour Johnson AFB. **Chapter 6** identifies the personnel contacted for the preparation of this EA. **Chapter 7** lists the preparers of the document. **Chapter 8** lists the references used in the preparation of the document. **Appendix A** contains the Notice of Availability.

## 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

### 2.1 ALTERNATIVE SELECTION CRITERIA

The Air Force goal of the Military Housing Privatization Initiative (MHPI) is to “provide military families access to safe, quality, affordable and well-maintained housing in a military community where they will *choose* to live.” Due to the current conditions of the housing at Seymour Johnson Air Force Base (AFB), meeting this goal would not involve the renovation and replacement of existing military family housing (MFH), just the private operation and management of MFH. The alternatives developed to address this goal must also satisfy additional criteria:

- Comply with the intent of MHPI congressional legislation.
- Comply with Department of Defense (DOD) guidance to revitalize, divest through privatization, or demolish inadequate housing.
- Provide for the effective management and operation of existing, renovated, and new MFH units and ancillary supporting facilities on a long-term basis.
- Provide the highest economic benefit, cost savings, and efficiency to the Air Force.

### 2.2 PROPOSED ACTION

Under the Proposed Action, the Air Force and a private developer (the Project Owner [PO]) would enter into a 50-year land-lease, real-estate agreement where the Government conveys all existing housing and associated improvements to the PO, and the PO plans, designs, develops, renovates, demolishes, constructs, owns, operates, maintains, and manages all related assets. The PO would be required to secure all necessary financing and provide required equity. In return, the PO would be entitled to collect rental income based on the military member’s Basic Allowance for Housing (BAH).

- MFH at Seymour Johnson AFB has been undergoing a 10-phase Military Construction (MILCON) Development Program to replace and renovate base housing prior to privatization. Phases I and II of the project involved slab-to-roof renovation of the homes in Wayne Manor East. The rest of the phases involve demolition of old units and construction of new homes, as well as the realignment of some of the streets in the Berkeley Village housing area. Under the Proposed Action, the Air Force plans a phased privatization where, upon closing the transaction, only those units certified for (post-construction) occupancy would be conveyed to the PO. Additional units currently under construction or renovation by the Air Force would be conveyed to the PO subsequent to the closing of the transaction. The actual number of units that would be conveyed to the PO at the time of closing could vary depending on the date of closing and how far along in reconstruction process the MILCON Development Program has gotten. By the end of the initial development period (IDP), an estimated 898 housing units will be conveyed to the PO. **Table 2-1** lists the 10 parcels that are part of the Proposed Action, the number of

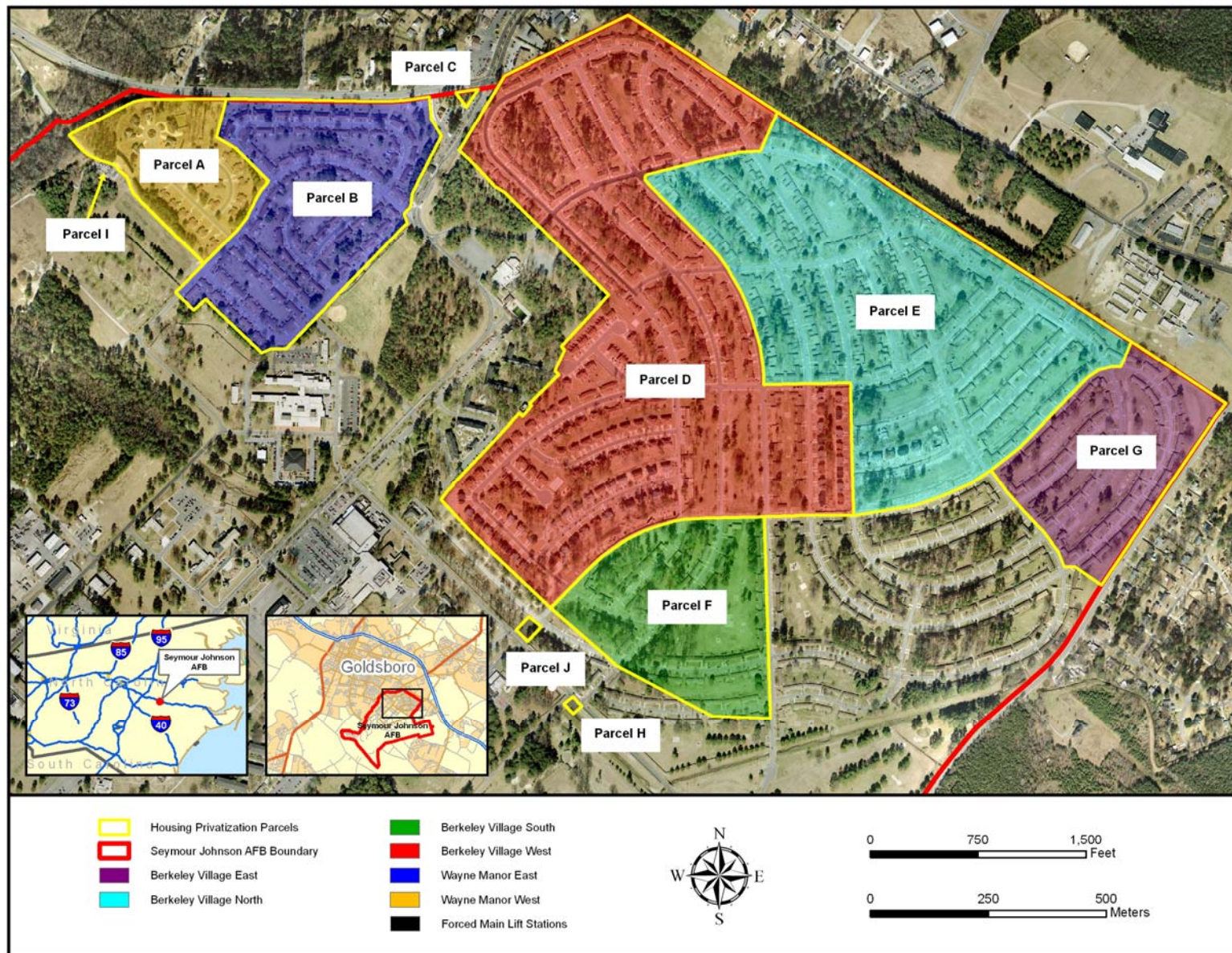
units to be conveyed and the estimated timeframe for the conveyance/lease. **Figure 2-1** depicts the parcels. **Figure 2-2** shows the proposed end-state of the MFH MILCON project with the street realignments and potential locations of some of the desired community features.

**Table 2-1. Military Family Housing Parcels.**

Parcel	MFH Area	Number of Units	Original Date of Construction	Land Disposition
A	Wayne Manor West	7	1999	Lease (50 years)
		18	2003	Lease (50 years)
B	Wayne Manor East	150*	1958	Lease upon completion of Government's renovation of 150 units (lease to expire upon expiration of lease for Parcels A, C, D, H and I)
C	Forced Main Lift Station Bldg 1701	0	N/A	Lease (50 years)
D	Berkeley Village East	450	2002 – 2007	Lease (50 years)
E	Berkeley Village West	235*	2009 – 2012	Lease upon completion of Government's construction of 235 units (lease to expire upon expiration of lease for parcels A, C, D, H and I)
F	Berkeley Village South	38	2010	Lease upon completion of Government's construction of 38 units (lease to expire upon expiration of lease for parcels A, C, D, H and I)
G	Berkeley Village Future Sports Complex	0	N/A	Lease (50 years; optional)
H	Forced Main Lift Station Bldg 4100	0	N/A	Lease (50 years)
I	Mechanical Circuit Breakers (3) for MFH	0	N/A	Lease (50 years)
J	Kenly Street Realignment	0	N/A	Lease upon completion of construction of roadway (lease to expire upon expiration of lease for parcels A, C, D, H and I)
<b>Total Units</b>		898		

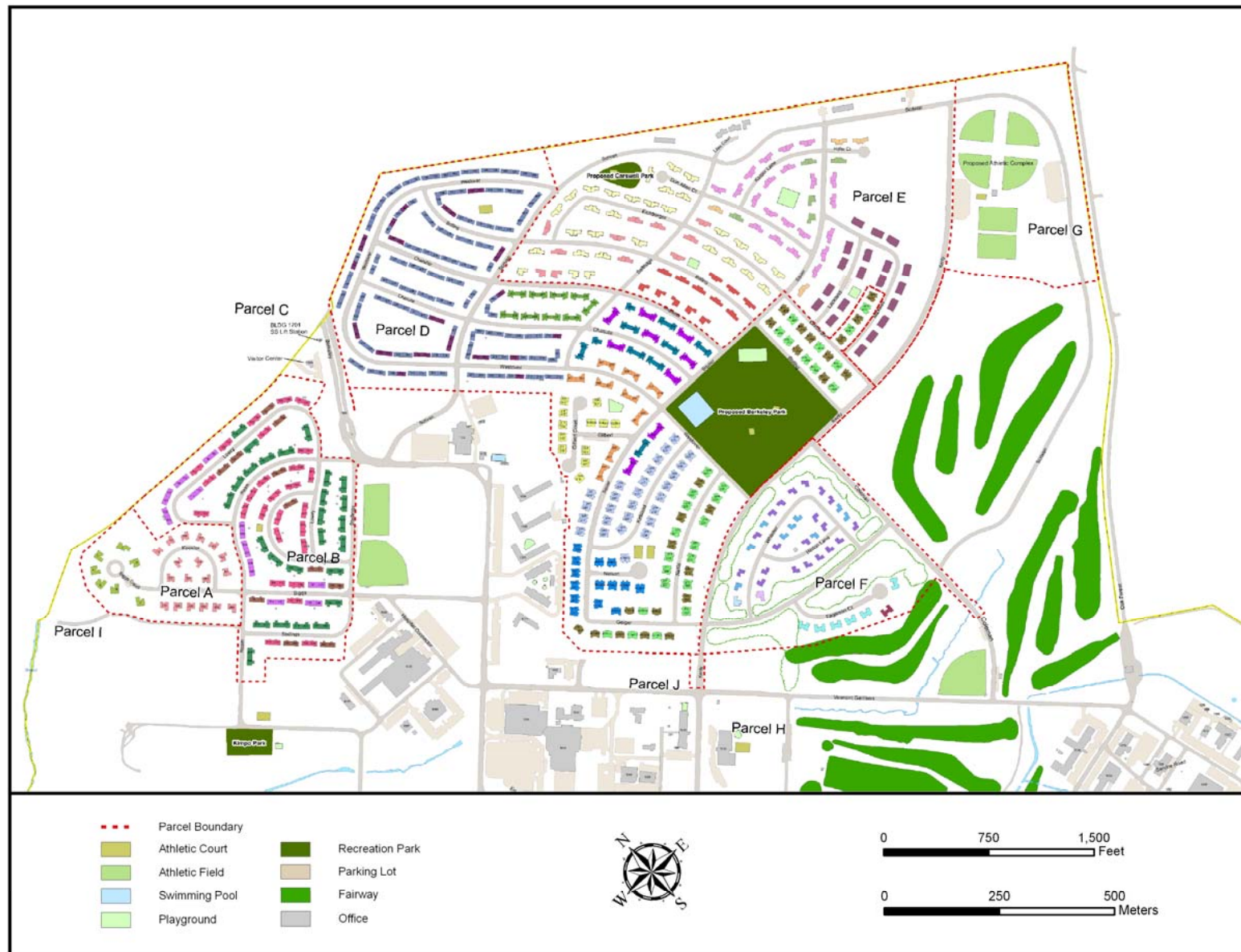
\* Units to be completed (renovation and new construction) as part of the MILCON Development Program





**Figure 2-1. Military Family Housing Privatization Parcels.**





**Figure 2-2. Proposed End-State of MILCON Project.**

In addition to managing the MFH at Seymour Johnson AFB, the Air Force expects the PO to plan for and provide desired community features to enhance the community experience of the military families. Every bidder for project ownership will submit their own vision for the community; therefore, the exact nature of the community amenities is not known at this time. The Air Force has identified certain community “desired features” that it would like to see in the bidders’ plans. These features include:

- Community center/clubhouse with pool and meeting rooms
- Community Sports Complex (to be located in Parcel G) with all-weather/low-maintenance sports fields and adequate parking to include: lighted Little League baseball fields; lighted adult softball field; lighted soccer fields; outdoor basketball courts; and, restroom and storage facilities
- A guard security house with local community architectural features, with a work area/desk and bathroom, adjacent to pedestrian entrance to Meadow Lane Elementary School
- Community-wide and neighborhood-wide recreational facilities (except additional playgrounds) in the interior of family housing areas, including group picnic areas (with such amenities such as pavilions, tables, grills, etc.)
- Concrete walks or asphalt trails leading to playgrounds where possible
- Road and trail connectivity among all housing areas
- Covered bus shelters
- Tennis courts (preferably lighted)
- Volleyball courts

Although none of these features are required to be constructed, the Air Force will select the PO in part by how they incorporate these optional amenities into their project design. For this reason, the Proposed Action assumes that these features would be constructed and this EA will evaluate the potential effects of the construction and operation of these features.

These new facilities would need to adhere to the *Uniform Federal Accessibility Standards* and the *Americans with Disabilities Act Accessibility Guidelines* pursuant to the Architectural Barriers Act of 1968, Rehabilitation Act of 1973, and Americans with Disabilities Act of 1990.

The leasing of the MFH parcels would be subject to several conditions imposed by the Air Force, including access to all existing easements, or those subsequently granted, as well as established access routes for roadways and utilities located, or to be located, on the premises. The lease would also specify activities restricted from occurring on the property such as collecting, storing, or disposing of hazardous waste; making any discharges or releases that would violate any environmental regulations or permits; using asbestos-containing materials (ACM) or lead-based paint (LBP) in any new construction; or removing or disturbing any historical, archeological, or cultural artifacts, relics, or remains, in the event such items should be discovered on the property.

The PO would operate and maintain all MFH units and ancillary supporting facilities for 50 years in accordance with the quality standards established in the Lease of Property and transactional agreements. Infrastructure such as roads, parking areas, sidewalks, street lighting,

utilities, and storm water drainage systems within the MFH areas would be conveyed to the PO who would be responsible for their operation and maintenance. The PO would also be responsible for the upkeep and future renovations of the MFH areas to ensure the units remain desirable for military families and meet Air Force standards.

Eligible service members who choose to live in privatized housing would rent directly from the PO. The Air Force would continue to categorize MFH by grade group. Unit rents would be fixed by type of unit. Military families would pay the PO rent based on the BAH minus a set amount sufficient to cover utilities for the unit. The PO would install utility meters at each of the units so the individual military family would pay for its utilities out of the BAH provided.

## **2.3 NO ACTION ALTERNATIVE**

Council on Environmental Quality (CEQ) regulations require inclusion of the No Action Alternative. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action and Alternatives can be evaluated.

Under the No Action Alternative, the Air Force would not implement the Proposed Action. The Air Force would continue to provide for the MFH needs of personnel at Seymour Johnson AFB through use of traditional military maintenance and construction procedures. Seymour Johnson AFB would continue to obtain funding for MFH through use of traditional military operations and maintenance and facility sustainment procedures or Congressional authorization and appropriations process. Based on historical trends, it is assumed that the amount of Congressional funding for MFH would not change and that the housing maintenance backlog would continue to increase. The No Action Alternative does not include a capital improvement plan or funding for future years beyond the MILCON project completion date. Natural aging would degrade the condition of the units over their expected 50-year life and it is likely that that maintenance and sustainment measures and funding would not be able to keep up with the needs of the units.

## **2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS**

The Air Force considered several options for providing MFH at Seymour Johnson AFB other than privatization. At other AFBs, where at least some of the housing will be conveyed in substandard condition, options including terminating the MFH program (Private Sector Reliance) and only privatizing substandard housing while maintaining a separate base-run housing program using the currently acceptable housing (Partial Privatization), have been considered. At Seymour Johnson AFB, where a MILCON Development Program has or will repair or replace all of the substandard housing units, these options do not have any merit. There are no benefits to the Air Force for abandoning the new housing units in favor of relying on the private sector to provide acceptable and affordable housing for military personnel and their families. In addition, since the housing units will not be conveyed to the PO prior to being certified for occupancy, there would be no benefit to the Air Force for retaining the units not completed when the transaction is completed and managing them separately.

The No Action Alternative, therefore, is the only viable alternative to the Proposed Action.



## 2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

**Table 2-2** presents a summary of the potential environmental consequences associated with the Proposed Action, the No Action Alternative and the cumulative environment. The impacts of the Proposed Action and No Action Alternative are discussed in detail in **Chapter 4**. The cumulative environment and its potential impacts are discussed in **Chapter 5**.

**Table 2-2. Summary of Environmental Consequences.**

<b>Resource</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>	<b>Cumulative Impacts</b>
Noise	Short-term minor construction impacts. Not significant.	No impacts.	Small contribution does not lead to cumulative impacts.
Air Quality	Minor construction emissions. Not significant.	No impacts.	Small contribution does not lead to cumulative impacts.
Water Resources	Best management practices would be used to prevent pollutant runoff; therefore, no significant impacts.	No impacts.	Small contribution does not lead to cumulative impacts.
Transportation	Minor construction traffic. Not significant.	Street realignments in MFH areas are part of MILCON project not Proposed Action, so they would still occur.	Small contribution does not lead to cumulative impacts.
Socioeconomics and Environmental Justice	Minor benefits due to construction employment and spending, but not significant. No disproportionate impact on minority or low-income populations.	No impacts.	Small contribution does not lead to cumulative impacts.

## 3.0 AFFECTED ENVIRONMENT

### 3.1 NOISE

#### 3.1.1 Definition of the Resource

Sound is defined as a particular auditory effect produced by a given source, for example the sound of rain on the roof. Sound is measured with instruments that record instantaneous sound levels in decibels (dB). A-weighted sound level measurements (dBA) are used to characterize sound levels that can be sensed by the human ear. "A-weighted" denotes the adjustment of the frequency content of a sound producing event to represent the way in which the average human ear responds to the audible event.

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying. Noise can be intermittent or continuous, steady or impulsive, and might involve any number of sources and frequencies. It can be readily identifiable or generally nondescript. Human response to increased sound levels varies according to the source type, characteristics of the sound source, distance between the source and receptor, receptor sensitivity, and time of day. One of the most common ways to describe ambient noise exposure over an extended period of time is as a day-night average sound level (DNL) measured in dBA. DNL refers to the average sound level exposure, measured in decibels, over a 24-hour period. A 10-dBA penalty is added to sound levels for operations occurring during the hours of 10 PM to 7 AM. This penalty is applied due to the increased annoyance created by noise events which occur during this time. DNL is a quantity that can be calculated directly at a specific location (United States [U.S.] Air Force [USAF] 1999).

##### 3.1.1.1 Ambient Sound Levels

Most people are exposed to sound levels of 50 to 55 dBA or higher on a daily basis. Noise levels in residential areas vary depending on the housing density and location. As shown on **Table 3-1**, noise in a normal suburban residential area is about 55 dBA, which increases to 80 dBA in the downtown section of a large city (U.S. Environmental Protection Agency [USEPA] 1974).

Interior noise levels are typically lower than exterior levels due to the attenuation of the sound energy by the structure, with the amount of noise level reduction (NLR) provided by a building being dependent on the type of construction and the number of openings such as doors, windows, chimneys, and plumbing vents. The approximate reduction in interior noise is 15 dBA when windows are open and 25 dBA for closed windows (USEPA 1974).

**Table 3-1. Typical Outdoor Noise Levels.**

Description	Typical Range in dBA	Average in dBA
Quiet Suburban Residential	48-52	50
Normal Suburban Residential	53-57	55
Urban Residential	58-62	60
Noisy Urban Residential	63-67	65
Very Noisy Urban Residential	68-72	70

Source: USEPA 1974

### 3.1.1.2 Construction Sound Levels

Building construction, modification, and demolition work can cause an increase in sound that is well above the ambient level. A variety of sounds come from graders, pavers, trucks, welders, and other work processes. **Table 3-2** lists noise levels associated with common types of construction equipment. Construction equipment usually exceeds the ambient sound levels by 20 to 25 dBA in an urban environment and up to 30 to 35 dBA in a quiet suburban area (Reagan and Grant 1977).

**Table 3-2. Noise Level of Heavy Equipment from a Distance of 50 Feet.**

Equipment	Noise Generated*
Bulldozer	95 dBA
Scraper	94 dBA
Front Loader	94 dBA
Backhoe	92 dBA
Grader	91 dBA
Crane	86 dBA

\* Noise from a single source  
Source: Reagan and Grant 1977

### 3.1.1.3 Air Installation Compatible Use Zones

The Air Force Air Installation Compatible Use Zone (AICUZ) program assesses and discloses noise created by operations on an installation with an airfield with the goal of preventing the encroachment of incompatible uses on the surrounding areas in a way that ultimately compromises the viability of the installation. Land use guidelines identified by Federal Interagency Committee on Urban Noise (FICUN 1980) are used to determine compatible levels of noise exposure for various types of land use surrounding airports; DNL 65 dBA noise contours are frequently used to help determine compatibility of aircraft operations with local land use. The Air Force AICUZ program predicts noise exposure by modeling aircraft operations and employing four bands of noise exposure:

- **DNL below 65 dBA**—typically acceptable for residential use.
- **DNL 65 to 69 dBA**—generally compatible with residential use and related structures; however, measures to achieve NLR of 25 dBA need to be incorporated into the design and construction of structures.
- **DNL 70 to 74 dBA**—residential use and related structures are generally incompatible; however, measures to achieve NLR of 30 dBA can be incorporated into the design and construction of structures.
- **DNL 75 to 79 dBA**—residential use is not compatible and should be prohibited (USAF 1999).

### 3.1.2 Existing Conditions

The primary noise source that defines the DNL contours for Seymour Johnson Air Force Base (AFB) is F-15E flight operations from the 4<sup>th</sup> Fighter Wing. KC-135R aircraft, another aircraft stationed at Seymour Johnson AFB, have one of the quietest noise profiles of all aircraft in the USAF.

With the exception of some Military Family Housing (MFH) at the northeast corner of the installation, the entire installation is within the DNL 65-dB noise contour. Although the layout at the base requires residential use, it is discouraged within the DNL 65- to 70-dB noise contour and strongly discouraged within the 70- to 75-dB noise contour (FICUN 1980). NLR measures must continue to be incorporated into all designs and new construction on the installation.

## 3.2 TRANSPORTATION

### 3.2.1 Definition of Resource

Air quality is determined by the type and concentration of pollutants in the atmosphere, the size and topography of the air basin, and local and regional meteorological influences. The significance of local pollutant concentrations is determined by comparing them to national and/or state ambient air quality standards (AAQS). Under authority of the Clean Air Act (CAA), the USEPA has established nationwide air quality standards, more commonly known as the National Ambient Air Quality Standards (NAAQS). These standards represent maximum allowable atmospheric concentrations for seven “criteria” pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter less than or equal to 10 micrometers in diameter (PM<sub>10</sub>), particulate matter less than or equal to 2.5 micrometers in diameter (PM<sub>2.5</sub>), ozone, and lead. Primary standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. NAAQS are defined in terms of concentration determined over time. Short-term standards (1-hour, 8-hour, or 24-hour periods) were established for acute health effects and may be exceeded only once per year for an area to be considered “in attainment”. Long-term standards for chronic health effects may never be exceeded.

States may establish their own standards as long as they are at least as stringent as the national requirements. A State Implementation Plan (SIP) is a detailed description of the program that the State proposes to use to enforce the CAA regulations. The CAA requires the USEPA to review and approve each SIP. North Carolina has established their own AAQSs and they are shown along with the NAAQSs in **Table 3.3**. Based on measured ambient air criteria pollutants, the USEPA designates areas of the U.S. as having air quality equal to or better than the NAAQS (attainment) or worse than the NAAQS (nonattainment).

Section 176(c) of the CAA is known as the General Conformity Rule and is codified as 40 CFR 51, Subpart W. Under the General Conformity Rule, no Federal agency shall approve any activity that does not conform to an applicable SIP. Specific conformity criteria are listed in 40 CFR 51.858. The General Conformity Rule only applies in areas that are in noncontainment or maintenance (40 CFR 51.853 [k]).

Title V of the CAA Amendments of 1990 requires states to issue Field Operating Permits for major stationary sources of air emissions. A major stationary source would include an AFB that emits more than 100 tons/year (TPY) of any one criteria air pollutant, 10 TPY of a hazardous air pollutant, or 25 TPY of any combination of hazardous air pollutants. The Prevention of Significant Deterioration (PSD) requirements of the CAA affect construction of new major stationary emission sources in areas that attain the NAAQS and serves as a pre-construction permitting system.

**Table 3-3. National Ambient Air Quality Standards.**

Pollutant	Primary Standards		Secondary Standards		North Carolina AAQS
	Averaging Time	Level	Level		Level
Carbon Monoxide	8-hour <sup>(1)</sup>	9 ppm (10 mg/m <sup>3</sup> )	none		9 ppm
	1-hour <sup>(1)</sup>	35 ppm (40 mg/m <sup>3</sup> )	none		35 ppm
Lead	Rolling 3-Month Average	0.15 µg/m <sup>3</sup> <sup>(2)</sup>	Same as Primary		none
	Quarterly Average	1.5 µg/m <sup>3</sup>	Same as Primary		1.5 µg/m <sup>3</sup>
Nitrogen Dioxide	Annual <sup>(3)</sup>	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary		0.053 ppm
	24-hour	none	none		none
Particulate Matter (PM <sub>10</sub> )	Annual	50 µg/m <sup>3</sup>			50 µg/m <sup>3</sup>
	24-hour <sup>(4)</sup>	150 µg/m <sup>3</sup>	Same as Primary		150 µg/m <sup>3</sup>
Particulate Matter (PM <sub>2.5</sub> )	Annual <sup>(5)</sup>	15.0 µg/m <sup>3</sup>	Same as Primary		15 µg/m <sup>3</sup>
	24-hour <sup>(6)</sup>	35 µg/m <sup>3</sup>	Same as Primary		65 µg/m <sup>3</sup>
Ozone	8-hour <sup>(7)</sup>	0.075 ppm (2008 std)	Same as Primary		0.08 ppm
Sulfur Dioxide	Annual	0.03 ppm	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour <sup>(1)</sup>	0.03 ppm
	24-hour <sup>(1)</sup>	0.14 ppm			0.14 ppm

ppm = parts per million by volume, mg/m<sup>3</sup> = milligrams per cubic meter of air, µg/m<sup>3</sup> = micrograms per cubic meter of air

- (1) Not to be exceeded more than once per year.
- (2) Final rule signed October 15, 2008.
- (3) Annual standards are arithmetic means.
- (4) Not to be exceeded more than once per year on average over 3 years.
- (5) To attain this standard, the 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.
- (6) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).
- (7) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)

Source: USEPA 2009. 15A NCAC 02D .0400

### **3.2.2 Affected Environment**

Seymour Johnson AFB is located in Wayne County, North Carolina, in the Central Coastal Plain state climate division. Summers are long and hot, while winters are mild but variable. The hottest month is generally July, with the warmest daily normal high and low temperatures of 91 degrees Fahrenheit (°F) and 71°F. The coldest month is January, with the coldest daily normal high and low temperatures of 53°F and 33°F. The area is generally humid year round, with an average annual precipitation of 49.8 inches (SCONC 2009).

Wayne County is currently in attainment for all NAAQS (NCDENR 2009). Seymour Johnson AFB has both stationary and mobile air emission sources. The stationary sources operate under Air Permit No. 03743R18 under the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Air Quality. The permit was issued January 25, 2006, and expires on December 31, 2010. Nine spray painting operations, two jet engine testing sources, a generator, and one engine-powered arresting gear system are covered by the permit. Other stationary sources are considered insignificant (USAF 2007). Mobile emission sources such as aircraft and on-road vehicles are not regulated by Title V of the CAA.

## **3.3 WATER RESOURCES**

### **3.3.1 Definition of Resource**

#### **3.3.1.1 Groundwater**

Groundwater is the subsurface water that fully saturates pores or cracks in soils and rock. It replenishes streams, rivers, and habitats and provides freshwater for irrigation, industry, and potable water consumption. Groundwater occurs in some proportion at nearly all depths in porous soil and rock, but when it is available for human consumption, it is called an aquifer.

#### **3.3.1.2 Surface Water**

Surface water resources consist of lakes, rivers, and streams. Surface water is important for its contributions to the economic, ecological, recreational, and human health of a community or locale. Stormwater is an important component of surface water systems because of its potential to introduce sediments and other contaminants that could degrade lakes, rivers, and streams. Stormwater systems, including drainage ditches, culverts, and underground pipes, convey precipitation away from developed sites to receiving surface waters. These systems can be overloaded by increased proportions of impervious surfaces associated with buildings, roads, and parking lots.

#### **3.3.1.3 Floodplains**

Floodplains are areas of low-level ground present along rivers, stream channels, or coastal waters. Such lands might be subject to periodic or infrequent inundation due to rain or melting snow. Risk of flooding typically hinges on local topography, the frequency of precipitation events, and the size of the watershed above the floodplain. Flood potential is evaluated by the Federal Emergency Management Agency, which defines the 100-year floodplain. The 100-year floodplain is the area that has a one-percent chance of inundation by a flood event in a given year. Certain facilities inherently pose too great a risk to be located in either the 100- or 500-year floodplain, such as hospitals and schools. Federal, state, and local regulations often limit



floodplain development to passive uses, such as recreational and preservation activities, to reduce the risks to human health and safety.

Executive Order (EO) 11988, Floodplain Management, requires federal agencies to avoid, to the extent possible, adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development.

#### **3.3.1.4 Wetlands**

The USEPA defines wetlands (in Title 40 Code of Federal Regulations [CFR] 230.3(t)) as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Wetlands provide rich habitat for a diverse range of plant and animal species, protection from flooding and erosion, and are also important to the nutrient cycle.

EO 11990, Protection of Wetlands, requires federal agencies to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. It also requires that agencies avoid construction or providing assistance for new construction located in wetlands, to the extent practicable.

### **3.3.2 Affected Environment**

#### **3.3.2.1 Water Supply**

The groundwater resources on Seymour Johnson AFB are influenced by three principal aquifers: the water table aquifer, the Black Creek aquifer, and the Cape Fear aquifer (SJAFB 1998). Based on the results obtained from on-site monitoring wells, the water table ranges from 1 foot below ground surface in the Neuse River and Stoney Creek floodplains to 15 feet below ground surface in the central portion of Seymour Johnson AFB; however, groundwater across the majority of the base generally varies from 6 to 12 feet below the surface.

Seymour Johnson AFB currently monitors groundwater levels in at least 60 wells across the Base. These wells were installed as required in the Seymour Johnson AFB Environmental Restoration Program (ERP) and other hazardous waste programs. In addition to recording groundwater levels, groundwater quality is also analyzed periodically as required by the different programs (USAF 2007).

#### **3.3.2.2 Surface Water**

Seymour Johnson AFB is located in the Neuse River-Stoney Creek watershed. Receiving waters from the base include Stoney Creek, Neuse River, and an unnamed tributary of the Neuse River. The southern portion of the runway is located within the 100-year floodplain of the Neuse River. This area has historically flooded, but the Falls Dam upstream now regulates flow in the Neuse River, and flooding is greatly reduced. Drainage within the base flows primarily southwest toward Neuse River, with a smaller portion draining northwest toward Stoney Creek, which then flows into the Neuse River (SJAFB 1998).

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### **3.3.2.3 Floodplains**

None of the MFH parcels are located within 100- or 500-year flood zones (USAF 2007).

### **3.3.2.4 Wetlands**

Wetlands on Seymour Johnson AFB are associated with the Neuse River, Stoney Creek, and their contributing tributaries. Although Parcel A, Wayne Manor West, is near the natural area along Stoney Creek, no wetlands extend into the housing area (SJAFB 1998).

## **3.4 TRANSPORTATION**

### **3.4.1 Definition of Resource**

Transportation refers to the movement of vehicles and humans throughout a road or highway network. Primary roads are principal arterials, such as major highways, designed to move traffic, but not necessarily designed to provide access to all adjacent areas. Secondary roads are arterials, such as rural routes and major surface streets that provide access to most, if not all, areas.

### **3.4.2 Affected Environment**

The Goldsboro region is served by U.S. Highway 117 (north to south) and U.S. Highway 70 (east to west). At the intersection of the two highways approximately 5 miles northwest of the base, Interstate 795 begins and heads north to join up with Interstate 95 approximately 30 miles north of Seymour Johnson AFB. The base is roughly 25 miles north of Interstate 40, which travels southeast from Raleigh to the Atlantic Coast.

Locally, Goldsboro is served by a network of arterial, collector, and local streets. Seymour Johnson AFB is connected to the surrounding community via three entrances. The majority of traffic enters and exits Seymour Johnson AFB via the main gate at the north end of the base along South Berkeley Boulevard. The MFH areas are not access-controlled from the rest of the base. There were five roads leading from Berkeley Village to the rest of the base; however, street realignment done as part of the MILCON project eliminated two of the access roads. Currently, Chandler and Kenly Roads lead into the MFH from Vermont Garrison Street, and Scriven Road enters the MFH from South Berkeley Boulevard just inside the base's main gate. Wayne Manor is accessed from South Berkeley Boulevard at Ream and Stallings Streets and from Wright Brothers Avenue at Biggs Street. Ream Street exits the southwestern portion of Wayne Manor at Lyster Street.

## **3.5 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

### **3.5.1 Definition of the Resource**

Socioeconomic analyses generally include detailed investigations of the prevailing population, income, employment, and housing conditions of a community or area of interest. The socioeconomic conditions of a region of influence (ROI) could be affected by changes in the rate of population growth, changes in the demographic characteristics of a ROI, or changes in employment within the ROI caused by the implementation of the proposed action.

In addition to these characteristics, populations of special concern, as addressed by EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 1994), are identified and analyzed for environmental justice impacts.

EO 12898 requires a federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.” A Message from the President concerning EO 12898 stated that federal agencies should collect and analyze information concerning a project’s effects on minorities or low-income groups, when required by the National Environmental Policy Act (NEPA). If such investigations find that minority or low-income groups experience a disproportionate adverse effect, then avoidance or mitigation measures are to be taken.

According to the Council on Environmental Quality (CEQ) (1997), a minority population can be described as being composed of the following population groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black, not of Hispanic origin, or Hispanic; and exceeding 50 percent of the population in an area or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population. Race and ethnicity are two separate categories of minority populations. A minority population can be defined by race, by ethnicity, or by a combination of the two distinct classifications.

Race as defined by the U.S. Census Bureau (2001) includes:

- White – A person having origins in any of the original peoples of Europe, the Middle East, or North Africa;
- Black or African American – A person having origins in any of the Black racial groups of Africa;
- American Indian or Alaska Native – A person having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment;
- Asian – A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, or the Philippine Islands; and
- Native Hawaiian and Other Pacific Islanders – A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

The U.S. Census Bureau (USCB) defines ethnicity as either being of Hispanic origin or not being of Hispanic origin. Hispanic origin is defined as “a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race” (USCB 2001).

Each year the USCB defines the national poverty thresholds, which are measured in terms of household income dependent upon the number of persons within the household. Individuals falling below the poverty threshold (\$21,203 for a household of four in 2007) are considered low-income individuals. USCB census tracts where at least 20 percent of the residents are considered poor are known as *poverty areas* (USCB 1995). When the percentage of residents considered poor is greater than 40 percent, the census tract becomes an *extreme poverty area*.

### **3.5.2 Existing Conditions**

The socioeconomic assessment for Seymour Johnson AFB includes a ROI containing Wayne County, North Carolina (including Seymour Johnson AFB) and those immediately surrounding counties: Wilson, Greene, Lenoir, Duplin, Sampson, and Johnston. More specifically, data for the USCB block groups<sup>1</sup> (used in the 2000 census) characterize the population of Seymour Johnson AFB. In this case, the block group of interest within Wayne County which covers Seymour Johnson AFB is Census Tract 5, Block Group 1.

#### **3.5.2.1 Population and Racial/Ethnic Profile**

The population within the ROI in 2000 was approximately 496,954 with 36.8 percent of the population comprised of minorities (USCB 2000) (**Table 3-4**). In 2000, the population for Seymour Johnson AFB, according to the USCB was 5,860 with 31.3 percent of the population comprised of minorities (USCB 2000). In 2000, Wayne County had a population of approximately 113,329 persons (USCB 2000), which increased to 113,590 by 2007 (USCB 2008), a less than one percent increase in the total population during this period. The USCB reports that approximately 35,381 persons (31.2 percent) of the total population of Wayne County reside in the city of Goldsboro. The demographic profile of the county indicates a minority population of approximately 38.7 percent; Black/African Americans accounted for 33 percent of the total population (USCB 2008).

#### **3.5.2.2 Income, Unemployment, and Poverty Status**

Data compiled from the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA) are compiled to provide a profile of the total population, labor force, and unemployment rate for Wayne County, the ROI, and the state of North Carolina (BLS 2008, BEA 2008). This data indicates generally lower unemployment for Wayne County as compared to the ROI and the North Carolina (**Table 3-5**). Per capita personal income is slightly higher for North Carolina than either smaller geographic area. In 2000, approximately 17 percent of the population within the ROI was considered to fall below the 1999 poverty threshold (USCB 2000). This was higher than Wayne County (13.8 percent) and much higher than Seymour Johnson AFB (2.9 percent) (USCB 2000). Overall, none of the geographic areas would be considered areas of concentrated minority or low income populations.

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<sup>1</sup> Census block groups are subdivisions of census tracts, usually containing between 600 and 3,000 people. It is one of the smallest geographic entities for which the decennial census tabulates and publishes sample data

**Table 3-4. Census Data for 2000.**

Location/ County	White	Black/ African Am.	Am. Indian/ Alaskan	Asian	Native Hawaiian/ Pacific Islander	All Other Races	Two or More Races	Total Pop.	% Minority
SJAFB	4,027	1,313	59	112	8	151	190	5,860	31.3%
North Carolina	5,804,656	1,737,545	99,551	113,689	3,983	186,629	103,260	8,049,313	27.9%
Wayne	69,452	37,422	412	1,088	55	3,483	1,417	113,329	38.7%
Wilson	41,210	29,032	199	310	16	2,367	680	73,814	44.2%
Greene	9,835	7,820	57	17	2	1,091	152	18,974	48.2%
Lenoir	33,685	24,115	106	202	30	1,119	391	59,648	43.5%
Duplin	28,785	14,198	113	75	36	5,334	522	49,063	41.3%
Sampson	35,955	18,018	1,086	186	54	4,183	679	60,161	40.2%
Johnston	95,237	19,090	494	368	43	5,530	1,203	121,965	21.9%
<b>Totals</b>	<b>314,159</b>	<b>149,695</b>	<b>2,467</b>	<b>2,246</b>	<b>236</b>	<b>23,107</b>	<b>5,044</b>	<b>496,954</b>	<b>36.8%</b>

Source: USCB 2000.

**Table 3-5. Employment Data for 2000.**

Geographic Location	Total Population	Total Labor Force	Total Unemployed	Unemployment Rate
Wayne County	113,396	53,225	3,172	2.8%
ROI	540,160	262,859	16,703	3.1%
North Carolina	9,041,594	4,543,764	286,947	3.2%

Source: UCSB 2000.

## 4.0 ENVIRONMENTAL CONSEQUENCES

This section presents an evaluation of the environmental effects that might result from implementing the Proposed Action or the No Action Alternative. Both direct and indirect environmental effects are discussed. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance but still reasonable foreseeable. The specific criteria for evaluating effects and assumptions for the analyses are presented under each resource area. Evaluation criteria for most potential effects were obtained from standard criteria; federal, state, or local agency guidelines and requirement; and legislative criteria. These criteria are used to assess whether the potential impact would be adverse, but not significant; significant; or beneficial. The significance of these effects is generally based on intensity (negligible, minor, moderate, or significant) and duration (short-term or long-term).

### 4.1 NOISE

Noise impact analysis typically evaluates potential changes to the existing noise environment that would result from implementation of a proposed action. For this assessment, the location of the residential area relative to the noise contours from the flightline will also be addressed for land use compatibility.

#### 4.1.1 Proposed Action

Short-term, minor adverse effects would be expected from the Proposed Action as a result of the noise from any construction activities. Because housing would not be conveyed to the Project Owner (PO) until it is certified for occupancy, the construction noise for demolishing, renovating, or replacing existing housing would not be part of the Proposed Action. Possible construction of desired community features, such as a community center and swimming pool, a community sports complex, and smaller amenities, would create some construction noise. While this noise may be a temporary source of annoyance for residents in the military family housing (MFH) areas, it would not be at levels that would require hearing protection measures. Construction activities would be restricted to the daylight hours, typically between 0700 and 1700 hours; therefore, it would not likely create a sleep disturbance. These noise events would be short-term and localized, with noise levels decreasing with distance from the activity; therefore, they would not be significant.

In **Section 3.1**, aircraft noise was discussed in terms of average daily day-night noise levels (DNL), which evaluates the total daily community noise environment. Construction noise is discussed in terms of the noise level of the equipment while in operation or the activity at a certain distance. As these noises are temporary and only affect areas close to the construction area, they are not averaged as part of the DNL.

According to the 2007 Air Installation Compatible Use Zone (AICUZ) study, roughly half of the MFH area falls within the 65- to 70-dB noise level contour. Air Force guidance states that when residential uses must be allowed in areas with DNLs of 65 dB or greater, measures to achieve an outdoor to indoor noise level reduction (NLR) of at least 25 to 30 dB should be incorporated into building codes and considered in individual approvals (USAF 1999). NLR criteria will not



eliminate outdoor noise problems; however, building location, site planning and design, and use of berms and barriers can help mitigate outdoor noise exposure particularly from ground level sources (Wyle 2005). This can also help reduce noise levels inside the units; however, outdoor NLRs are not required (USAF 1999).

Recreational areas such as athletic fields and parks are considered compatible with the 65-dB to 70-dB noise contour; therefore, there would be no significant impacts to the construction of the desired community features in the MFH areas.

The 50-year land lease and the private management of MFH housing would not have an impact on the noise environment.

#### **4.1.2 No Action Alternative**

Under the No-Action Alternative, the military housing construction would still be completed, but the MFH units would not be turned over to a PO and none of the desired community features would be installed. There would be no noise impacts.

### **4.2 AIR QUALITY**

Impacts to air quality would occur if federal actions resulted in violation of a National Ambient Air Quality Standard (NAAQS), contributed to an existing or projected air quality violation, or represented an increase of 10 percent or more in local pollutant emissions.

#### **4.2.1 Proposed Action**

Fugitive dust from ground disturbing activities and combustive emissions from construction equipment would be generated during the potential construction of the desired community features. Fugitive dust would be generated from activities associated with site clearing, grading, cut and fill operations, and from vehicular traffic moving over the disturbed site. These emissions would be greatest during the initial site preparation activities and would vary from day to day depending on the amount of exposed ground, level of activity, and prevailing weather conditions.

Section 176(c) of the Clean Air Act (CAA) is known as the General Conformity Rule and is codified as 40 Code of Federal Regulations (CFR) 51, Subpart W. The provisions of this rule apply to state review of all federal general conformity determinations submitted to the state pursuant to 40 CFR 51, Subpart W, and incorporated by reference at Title 20, Chapter 2, Part 98, of the New Mexico Administrative Code. The Conformity Rule only affects federal actions occurring in nonattainment and maintenance areas. Since Seymour Johnson Air Force Base (AFB) is located in an area that is in attainment for all criteria pollutants, there is no need to prepare a conformity determination for the Proposed Action.

In a NAAQS attainment area, the environmental consequences on local and regional air quality conditions are determined based on the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. The impacts would be significant if the net increases in pollutant emissions would result in any one of the following:



- Cause or contribute to a violation of any national or state ambient air quality standard, or
- Represent an increase of 10 percent or more in an affected emissions inventory.

Under the Proposed Action, housing units would only be conveyed to the PO once they have been certified for occupancy; therefore, the demolition and renovation or replacement of existing housing is not part of the Proposed Action. The construction of whatever desired community features are agreed to by the PO would not involve large areas of land clearing or construction equipment at any one time. Even if all potential amenities were constructed at the same time, the fugitive dust and combustion emissions from the action would not be anywhere close to the emissions generated by the military housing construction, and those emissions were evaluated as being not significant (SJAFB 1995). The 50-year land lease and the private management of MFH housing would not have an impact on air quality; therefore, the impacts of the Proposed Action on air quality are not significant.

#### **4.2.2 No Action Alternative**

Under the No-Action Alternative, the military housing construction would still be completed, but the MFH units would not be turned over to a PO and none of the desired community features would be installed. No fugitive dust or combustive emissions would result from construction activities; therefore, there would be no decrease in air quality associated with the No Action Alternative.

### **4.3 WATER RESOURCES**

The analysis of water resources assesses the potential for the Proposed Action and Alternatives to affect water availability, quality, and use, as well as their potential to affect floodplains and wetlands.

#### **4.3.1 Proposed Action**

There are no surface water bodies, floodplains or wetlands within or adjacent to the MFH areas. During any construction activities, best management practices (BMPs), such as silt fencing and hay bales, would be employed between the project footprint and any storm drains or other drainage channels to prevent impacts on water quality. It is unlikely that the Proposed Action would have any effect on groundwater resources. The 50-year land lease and the private management of MFH housing would not have an impact on water resources.

#### **4.3.2 No Action Alternative**

Under the No-Action Alternative, the military housing construction would still be completed, but the MFH units would not be turned over to a PO and none of the desired community features would be installed; therefore, there would be no impacts on water resources.

### **4.4 TRANSPORTATION**

Transportation activities are assessed by comparing the projected transportation conditions with the baseline or no action conditions. The assessment analyzes whether changes from the proposed Action would have an adverse impact on the transportation services within the vicinity of Seymour Johnson AFB.

#### **4.4.1 Proposed Action**

The Proposed Action does not affect the base mission or the number of military personnel available or assigned to the mission; therefore, on-base traffic should not change as a result of the Proposed Action. Some of the MFH are still under construction as part of a phased military construction (MILCON) project; therefore, the MFH areas are not at full occupancy. Occupancy will increase following the close of the transaction as the MILCON actions are completed and the full 898 units become certified for occupancy. Because there will be fewer units in Berkeley Village once construction is complete, the increase in traffic upon full occupancy would not adversely affect traffic in and out of the MFH areas.

During the MILCON project that has replaced much of the MFH at Seymour Johnson AFB, several streets in Berkeley Village were removed or realigned. The realignments and closures are not part of the proposed Action; therefore, any effects the changes have had on base traffic are not evaluated in this assessment.

There will be a small amount of additional traffic for construction of the desired community features, but the features would not all be constructed at once or in one location; therefore, the effect on local traffic would not be significant. The 50-year land lease and the private management of MFH would not have an impact on transportation.

#### **4.4.2 No Action Alternative**

Under the No-Action Alternative, the military housing construction would still be completed, but the MFH units would not be turned over to a PO and none of the desired community features would be installed. During the MILCON project that has replaced much of the MFH at Seymour Johnson AFB, several streets in Berkeley Village were removed or realigned. The realignments and closures are part of the No Action Alternative. Presumably, these changes were made to improve the layout of the residential areas and make them more pleasant to live in; therefore, they represent beneficial impacts associated with the No Action Alternative.

### **4.5 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

#### **4.5.1 Proposed Action**

##### **4.5.1.1 Economics**

During the short term limited temporary construction jobs would be created during the development of the amenities on the project site. Workers would likely be local to the county or the region of influence (ROI). There would be no large-scale migration of workers from outside the ROI, with no corresponding increase in demand for schools, infrastructure, housing, or other services. The long-term impacts of the amenities will not include job creation, business development, tax revenue, employment opportunities, or income potential to Wayne County residents. Short- or long-term impacts to the economy would be negligible. The 50-year land lease and the private management of MFH housing would not have an impact on the economy of the region.

#### **4.5.1.2 Environmental Justice**

Environmental justice concerns would be considered significant if impact to children, minority populations, or low-income communities were disproportionately high. The poverty level in Wayne County is 13.8 percent, which is not disproportionately higher compared to the state level of 12.3 percent. The minority population in Wayne County is 38.7 percent as compared to the state at 27.9 percent. The percentage of unemployed in Wayne County is 4.5 percent as compared to 4.7 percent at state level.

Because none of the target populations are disproportionately high, the alternatives are not expected to disproportionately impact minority, low-income, or unemployment levels.

#### **4.5.2 No Action Alternative**

Under the No-Action Alternative, the military housing construction would still be completed, but the MFH units would not be turned over to a PO and none of the desired community features would be installed. There would be no impacts on population or economics from this alternative.

Because the potential ROI does not contain disproportionately high populations of minority, low-income, or unemployed persons, the no action alternative is not expected to disproportionately impact these populations.

## **5.0 CUMULATIVE IMPACTS**

### **5.1 CUMULATIVE ENVIRONMENT**

The Council on Environmental Quality (CEQ) defines cumulative effects as the “impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 Code of Federal Regulations [CFR] 1508.7). Although individual impacts of various actions might be minor, taken together their effects could be significant.

Impacts subject to cumulative effects analysis are identified by reference to the temporal span and spatial area in which the Proposed Action could cause effects. The initial development period (IDP) for the Proposed Action is five years; therefore, the construction and demolition of military family housing (MFH) would occur over a five-year period and the temporal span for the cumulative effects analysis includes projects reasonably foreseeable during the five-year construction and demolition period. For most resources, the spatial area for consideration of cumulative effects is Seymour Johnson Air Force Base (AFB); however, air and socioeconomic resources over a larger region of influence (ROI) could be affected by the Proposed Action; therefore, the cumulative effects could span over a larger ROI.

Starting in 1995, Seymour Johnson AFB has been undergoing a 10-phase military construction (MILCON) project to renovate or replace MFH to provide adequate housing for base personnel. The first two phases involved renovation only, whereas the subsequent phases have consisted of demolition and reconstruction. Under the Proposed Action, upon closing the transaction, only those units certified for (post-construction) occupancy would be conveyed to the Project Owner (PO). Additional units currently under construction or renovation by the Air Force would be conveyed to the PO subsequent to the closing of the transaction; therefore, the construction of desired community amenities as part of the Proposed Action would likely occur while some of the military housing construction is ongoing.

In 2005, the Base Realignment and Closure (BRAC) Commission recommended realigning Seymour Johnson AFB by stationing eight additional KC-135R aircraft at the base and expanding the Centralized Intermediate Repair Facility (CIRF) for F-100-220 engines. Seven infrastructure and facility construction projects were identified to improve and support the realignment action. These projects are ongoing.

### **5.2 CUMULATIVE IMPACTS**

The 50-year land lease and the private management of MFH would not have an impact on the human environment at Seymour Johnson AFB; therefore, it is not analyzed in this section.

#### **5.2.1 Noise**

The potential construction activities that are part of the Proposed Action will be conducted as the MILCON is winding down; therefore, there should be no significant cumulative noise impacts.

### **5.2.2 Air Quality**

While Seymour Johnson AFB has a permit to cover several stationary operations, its other stationary operations are insignificant and its mobile emissions are not regulated. Combined with the fact that Wayne County is in attainment for all National Ambient Air Quality Standards (NAAQS), the comparatively small increase in fugitive dust and combustion emissions during the construction of the amenities associated with the Proposed Action, as compared with that of military housing construction, would not be significant.

### **5.2.3 Water Resources**

Seymour Johnson AFB's MFH is not located in a floodplain or wetland area. Best management practices (BMPs) would be used to prevent sediment runoff from construction activities from impacting surface water; therefore, there would be no cumulative impacts on water resources.

### **5.2.4 Transportation**

The construction activities associated with the Proposed Action construction projects at Seymour Johnson AFB would produce slightly more traffic; however, the additional traffic would be sporadic and unlikely to cause a significant reduction in level of service.

### **5.2.5 Socioeconomics and Environmental Justice**

Between 2000 and 2007 the population of Wayne County increased by less than one percent, and the North Carolina Office of State Budget and Management (OSBM) predicts roughly a one percent growth rate in Wayne County over the next ten years (OSBM 2009). The Proposed Action will not result in socioeconomic or population changes, particularly in the Goldsboro region. Additionally, none of the geographic areas are considered concentrated minority or low-income areas; therefore, there would be no cumulative environmental justice concerns.

## **5.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

National Environmental Policy Act (NEPA) CEQ regulations require environmental analyses to identify "...any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented" (40 CFR Section 1502.16). Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) which cannot be replaced within a reasonable time frame. Building construction materials, labor and fuel usage for construction equipment would constitute the consumption of non-renewable resources. These resources are currently plentiful in North Carolina and the Proposed Action would not significantly affect environmental resources.

## 6.0 PERSONS CONTACTED

Name	Organization	Title
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Name and Title	Organization	Years of Experience	Responsibility
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Anna Perry, MS <i>Senior Administrative Assistant</i>	Geo-Marine, Inc.	4	Report production
Suzanne Bates, MS <i>Lead Environmental Specialist</i>	Geo-Marine, Inc.	12	Quality assurance

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**APPENDIX A**  
**NOTICE OF AVAILABILITY**

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## NOTICE OF AVAILABILITY

### **Draft Environmental Assessment and Draft Finding of No Significant Impact Military Family Housing Privatization at Seymour Johnson Air Force Base, NC**

The U.S. Air Force announces the availability of a Draft Environmental Assessment (DEA) for the proposed privatization of Military Family Housing (MFH) at Seymour Johnson Air Force Base (AFB). MFH at Seymour Johnson AFB has been undergoing a 10-phase military construction (MILCON) Development Program to replace and renovate base housing prior to privatization. Under the Proposed Action, the Air Force plans a phased privatization where, upon closing the transaction, only those units certified for (post-construction) occupancy would be conveyed to the Project Owner (PO). Additional units currently under construction or renovation by the Air Force would be conveyed to the PO subsequent to the closing of the transaction. The actual number of units that would be conveyed to the PO at the time of closing could vary depending on the date of closing and how far along in reconstruction process the MILCON Development Program has gotten. By the end of the initial development period, an estimated 898 housing units will be conveyed to the PO. In addition to managing the MFH at Seymour Johnson AFB, the Air Force expects the PO to plan for and provide desired community features to enhance the community experience of the military families.

As part of the Air Force Environmental Impact Analysis Process (EIAP), the Air Force has prepared a DEA for this action. The DEA considers in detail the potential effects of the Proposed Action and alternatives, including the No Action Alternative, on noise, air quality, water resources, transportation, and socioeconomics and environmental justice. The results, as found in the DEA, show that the Proposed Action would not have a significant adverse impact on the environment, and that a Finding of No Significant Impact (FONSI) is warranted.

Copies of the DEA and Draft FONSI are available for review at the Wayne County Public Library, 1001 E Ash St. Goldsboro, N.C. Public comments on the DEA and Draft FONSI will be accepted until **September 29, 2009**. Comments should be sent to Mr. Rick Bott, 4 CES/CEA, 1095 Peterson Avenue, Seymour Johnson AFB, NC 27531-2355, or emailed to Rick.Bott.Ctr@seymourjohnson.af.mil.